# **STEM: Why Collaborate?**

By Jeannie Standal

Dear STEM Teachers:

When you think of collaboration, do you consider working with your school librarian? If you think of your library as a place only for those history and literature related subjects, you may be missing out on a wonderfully productive opportunity.

Your school librarian has a wealth of information in the library from print sources to databases and beyond. In addition, many school libraries have space for large and small group work difficult to arrange in a classroom.

"Where teachers experience librarians as instructional colleagues and technology integrators, students are more likely to excel academically."

-Idaho School Library Impact Study, 2009

With school and public libraries embracing the maker movement, a maker day is an excellent opportunity for science teachers and librarians to collaborate for a full day of maker fun and learning for students. There are fun, easy to set up, and easy to afford projects for every level.

Many libraries are already working with students to make library book trailers. Why not adapt that idea to science and math ideas? Work with your librarian and students to make Vines (see Practical Applications) illustrating principles in action or demonstrating equations in action in the physical world.

Maker projects don't have to be expensive. Any library can start small with cardboard building projects, catapults, mosaics, website design, Minecraft and more. When the library is ready to make a larger investment, LED projects, Makey-Makey kits, and building brick sets can make great initial purchases.



Remember, technology is a major element of the library. There are many ways for the STEM related classes to make good use of the school library! Check out the links to more learning (opposite top) to find ideas and projects that will work for your class. Then walk down the hall to the library and let the collaborating begin!

#### LINKS TO MORE LEARNING



## **Making in the Library Toolkit**

YALSA's complete toolkit for Makerspace resources in the library. Includes a section specifically for school libraries, although most the toolkit can be applied to the school library.

# Make Idaho Facebook page

Latest news and ideas from Idaho and beyond.

# School Librarians can be Crucial Partners in STEM.

Short article on the roll of librarians in STEM Education.

## **Designing a School Makerspace**

YALSA's complete toolkit for Makerspace resources in the library. Includes a section specifically for school libraries, although most of the toolkit can be applied to the school library.

#### PRACTICAL APPLICATIONS



#### Vine in the Classroom

Vine is a mobile app used to create short videos. By limiting the length of the video, Vine creates an environment for students to summarize and demonstrate concepts in a concise manner.

The possibilities for learning expand when students' mobile devices are used to synthesize and communicate concepts learned in the classroom. The school library is an excellent resource for on site research, creating demonstrations, and sharing videos with others in the school.

#### **DIGITAL TOOLS**



#### **World Book Kids**

Find Math activities and science projects for students, plus lesson plans in the Educator Resources that align with those activities.

# **Gale Virtual Reference Library**

Reference books covering topics like energy, real-life math applications, and technology research great for middle and high schools.

#### **Scout Classroom Edition**

Video and multimedia content explaining STEM concepts for all grade levels. Many of the resources include lesson plans for implementation in the classroom.

All available at http://www.lili.org



